

COLD WATER FISHERIES
 RESEARCH UNIT, C.I.F.R.I.,
 HARWAN,
 KASHMIR,
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18. A NOTE ON THE ZOOGEOGRAPHY OF INDIAN MELOIDAE (COLEOPTERA)

The information regarding the Meloidae (Coleoptera: Heteromera) of India though at the moment is incomplete in many ways, the available data does show considerable evidence on the Zoogeographical affinities of the

blister beetles.

Blister beetles are represented at present by 105 species belonging to 19 genera. Table 1 shows that the meloids exhibit a high degree of endemism. About 66.6 per cent species are

TABLE 1
 ZOOGEOGRAPHICAL ANALYSIS OF MELOIDAE FROM INDIA

Sub-families and tribes	Total genera	number species	Endemic species	Oriental species	Palaeartic species	Ethiopian species	Australian species	Nearctic and Neotropical species	Wide spread species
Meloidinae									
Eleticini	1	4	2	1	—	1	—	—	—
Epicautini	3	34	24	10	2	—	—	—	—
Mylabrini	3	21	11	7	3	2	—	—	—
Lyttini	5	25	17	7	1	—	—	—	—
Meloini	1	4	2	—	2	—	—	—	—
Zonitinae									
Zonitini	4	14	14	—	—	—	—	—	—
Horiinae									
Horiini	1	2	—	2	—	—	—	—	—
Cissitini	1	1	—	1	—	—	—	—	—
Total	19	105	70 66.66%	28 26.66%	8 7.61	3 2.85%	—	—	—

endemic to India. The tribe Zonitini is entirely endemic.

As should be expected, a high percentage c. 27 per cent constitute the Oriental element. In Palaearctic realm, about 8 per cent of the species have so far been recorded. The Ethiopian element is rather very poorly represented and constitute about 3 per cent of the total

fauna. It is interesting to note the complete absence of Nearctic, Neotropical and Australian species in India. Besides, none of the species is widespread.

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19. ON SOME INSECTS ASSOCIATED WITH LAC IN INDIA

INTRODUCTION

The lac insect, *Kerria lacca* (Kerr) (Tachardiidae, Homoptera, Hemiptera) thrives on the sap of numerous host plants, and is, in its turn, attacked by a number of parasites and predators. Glover (1934, 1937) recorded 4 encyrtid, 1 eupelmid, 2 apheliniid and 1 eulophid parasites and 2 major predators of the lac insect. Varshney (1976) has not reported any of the insects mentioned in this paper.

The parasitic insects listed in this paper were collected from fresh mature lac caged in specially fabricated cages dark-lined inside except at the holes for fitting glass tubes to study the insects associated with lac insect. The collections were made at the Indian Lac Research Institute, Namkum, Ranchi and its Regional Stations at Kundri (District Palamau, Bihar), Mirzapur (Uttar Pradesh) and Damoh (Madhya Pradesh) as stated against the insects.

OBSERVATIONS AND DISCUSSION

1. *Apanteles angaleti* Muesbeck (Hymenoptera: Braconidae)

Seven specimens (5 ♀♀ and 2 ♂♂) were collected from mature *katki** 1968 crop on *palas* or flame of the forest [*Butea monosperma* (Lam.) Taub.] (Leguminosae: Papilionatae) from Rajnagar (located about 10 km from Damoh in the Forest Compartment No. 107 of the Reserve Forest of Damoh Range, Damoh Forest Division), Damoh.

Two species of the genus *Apanteles*, namely, *A. tachardiae* Cam. and *A. fakhrulhajiae* Mahd., have long been known as endoparasites on the larvae of *Holcocera pulvereana* Meyr. (Lepidoptera: Blastobasidae), a major predator of the lac insect (Mahdihassan 1925). Hence *A. angaleti* was also presumed to be a parasite of *H. pulvereana*. In order to confirm this view, 25 cocoons spun over the dead larvae of *H. pulvereana* were collected from the